

CHAPTER 12

Disposal

12-1. Introduction. USACE policy is that USACE will dispose of radioactively contaminated materials only at facilities licensed by the Nuclear Regulatory Commission (NRC) or an Agreement State, or at facilities permitted by a Federal or state regulator to accept radioactive materials in accordance with their facility permit and all applicable laws and regulations. Materials will be disposed of in a cost-effective manner, considering all feasible options that achieve protectiveness and compliance with all applicable Federal and state laws. To assure that this policy is implemented, the project manager will document a disposal strategy containing the following elements in the Project Management Plan for each project.

12-2. Characterization of Materials. USACE will characterize materials to determine the laws and regulations that apply to off-site disposal of specific materials at each site. The use of appropriate analytical testing to determine physical and chemical characteristics and a determination of historical factors (generator knowledge) about the materials processed on the site are necessary to properly characterize the materials as to category of radioactivity and RCRA hazardous waste codes (if relevant), and determine who has regulatory authority. More than one type of material may be identified for a particular site. Characterization will be conducted in consultation with the appropriate technical and legal specialists. The characterization process will be coordinated with the Hazardous, Toxic, and Radioactive Waste Center of Expertise and the conclusion will be documented, and retained in the project file.

12-3. Identify and Coordinate with Potential Disposal Facilities. Based on the characterization of materials, USACE will identify potential disposal facilities and will assure that such interested off-site disposal facilities are provided accurate characterization information concerning material intended for off-site disposal.

12-4. Compare Transportation and Disposal Costs of Viable Facilities. USACE will determine the most cost-effective option for disposal of material. Packaging, transportation (including potential demurrage costs), and disposal fees will be included in the cost effectiveness analysis.

12-5. The Off-site Rule. Only facilities meeting the NCP Off-site Rule's ([40 CFR 300.440](#)) acceptability criteria will be used for disposal of materials that are CERCLA waste, including radionuclides. Under this rule, USACE will notify the EPA Regional Off-site Coordinator (ROC), in the region where the selected facility is located, of the intent to send CERCLA waste to that facility. USACE will transport CERCLA waste off-site only when the ROC has

made a finding and notified USACE that the receiving facility meets the compliance and release criteria in 40 CFR §300.440 (b) and is therefore acceptable under the Off-site Rule.

a. In the event of an emergency posing an immediate and significant threat to human health or the environment, shipment may commence prior to the ROC's determination. The project manager may consider temporary measures, such as interim storage, to allow time to locate an acceptable facility. The ROC must be notified and the response received prior to final disposal of the CERCLA waste.

b. If shipments are not initiated within 60 days of the ROC's determination of the facility's acceptability status, then USACE will recheck the status with the ROC. In the event that the facility's status under the Off-site Rule changes to unacceptable, and EPA notifies the facility and the project manager, material will cease to be sent to that facility until the status of the facility is officially changed to acceptable by EPA under the Off-site Rule.

c. The ROC determination does not supersede the facility regulator's authority to determine the acceptability of a material under the facility's license or permit; however, waste may not be shipped and disposed of at the facility without the EPA finding of acceptability under the Off-site Rule.

12-6. Facility Regulators. USACE is responsible for ensuring that all appropriate contacts (NRC, EPA, or state) are made with regulators before shipment of materials off-site for disposal. Open and early communication with regulators is necessary for the successful execution of this policy.

a. A written description of the materials to be disposed of will be provided to the selected facility. The facility will seek to obtain written authorization from the appropriate regulators, indicating that the proposed disposal is consistent with applicable regulations and the permit or license of the disposal or treatment facility. USACE will ensure that:

(1) The nature of the material to be disposed of has been accurately represented.

(2) Acceptance is unqualified.

(3) The regulator indicates the proposed action would not violate applicable laws and regulations or the facility permit or license.

b. There may be low-level radioactive waste (LLRW), as defined by the [LLRW Policy Amendments Act](#) (reference 4.f.), on some sites. Disposal of such material may be affected by regulations governing the regional LLRW compacts. The Atlantic, Rocky Mountain*, and

* Rocky Mountain compact contracts with the Northwest compact for use of the Northwest disposal facility at Hanford in Washington state

North West compacts have Low Level Radioactive Waste Disposal facilities that must be used for disposal of waste generated within their compact. Some compacts allow for export of waste but will charge an export fee. Since these vary among compacts, plans for disposal of LLRW must be coordinated with District Office of Counsel to ensure compliance with all applicable regulations.

c. All contacts will be documented and all records retained in the project file, as well as copies of all written agreements and approvals.

d. The State of Utah has enacted a requirement for a generator's site access permit to allow generators to dispose of radioactive waste at sites within their state. Office of counsel for USACE contends that application of this permit and the accompanying fees to the Federal government is not permissible. The State of Utah has agreed that the fee does not apply to the Federal government when disposing of AEA regulated material. However, the State of Utah has not concurred with the USACE position pertaining to the disposal of non-AEA regulated materials (e.g., NORM, radioactive residuals from ore processing prior to UMTRCA). USACE has agreed not to ship these materials to Utah without a permit or a resolution of the disagreement.

12-7. Transportation Requirements. Shipments of FUSRAP materials will comply with all applicable NRC and Department of Transportation requirements. Materials that are an RCRA hazardous waste must also comply with applicable EPA and state manifest and transportation requirements. See [LLRW Policy Amendments Act](#) (references 4.h. and 4.i.) for a discussion of these requirements. USACE will also follow the additional items below.

a. USACE personnel are responsible for signing shipping papers in accordance with [LLRW Policy Amendments Act](#) (reference 4.i.).

b. A secondary non-DOT marking sticker will be added to all bulk containers of material. The intent of this sticker is to ensure that all materials, no matter their hazardous characteristics, are appropriately disposed of.

c. A Certificate of Disposal or Placement is required for all off-site disposal of materials. This certificate will provide a complete record of the final disposition of the material. The certificate should identify the individual quantities of material received at the disposal facility and the location where the material is finally placed after disposal.

d. A Chain-of-Custody form will be required for the off-site disposal of all material, including material that is not regulated by DOT, EPA, or NRC.

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12-8. Disposal Contracts. Kansas City District has a number of contracts in place for disposal of radioactive materials. These contracts are available for use to all DOD components and Federal agencies. These contracts offer very competitive disposal rates at a variety of sites, depending on the nature of the waste materials.

12-9. Disposal Options Available as of January 2003.

a. [Chem-Nuclear Systems](#), L.L.C., Barnwell, South Carolina. This is the Atlantic Compact disposal site. It may accept waste from outside the Atlantic Compact. Acceptable waste includes LLRW Class A, B, and C, NORM and NARM. Will accept biological waste. No liquid waste accepted. Waste must be packaged. Requires annual allotment of space for Out of Compact users with large volumes. Costs range from \$4.50 to \$8.04 per pound, depending on density, plus \$0.38 per millicurie, plus \$1.00 to \$1.50 per mR/hr, depending on exposure rate, plus \$4.00 per cubic foot Compact Commission surcharge.

b. [US Ecology](#), Hanford Reservation, Washington. This is the Northwest and Rocky Mountain Compacts disposal site. It accepts LLRW, Class A, B, and C, from within Compacts. NORM and NARM may be accepted from outside the compact. Will accept biological waste. No liquid waste accepted. Waste must be packaged.

c. [Envirocare, Inc.](#), Clive, Utah. Accepts LLRW Class A, NORM and NARM, 11e(2), and Mixed Waste. Offers treatment services.

d. [Waste Control Specialists](#), Andrews County, Texas. Provides Interim Storage for LLRW Class A, B, C, and greater than Class C wastes. May dispose of non-NRC regulated radioactive waste.

e. [American Ecology](#), Grandview, Idaho. May dispose of non-NRC regulated radioactive waste with activities less than 2000 pCi/g total activity.

f. [American Ecology](#), Robstown, Texas. May dispose of non-NRC regulated radioactive waste with activities less than 2000 pCi/g total activity.

g. [International Uranium Corp.](#), Utah. May accept uranium for recycling as source material.

12-10. USACE and DA Coordination. The Department of Defense (DOD) has designated the US Army as the Executive Agent for disposal of DOD radioactive waste. The operational working of this has been delegated by the DOD Executive Agent to the Army Field Support Command (AFSC), Radioactive Waste Disposal Division. All DOD-generated radioactive waste must be disposed of in coordination with AFSC. Since USACE disposes of waste from a large number of generators, all waste disposed of by USACE must be

coordinated with the HTRW CX. The HTRW CX will determine which disposal actions must be coordinated with AFSC and will provide case-by-case guidance and assistance on accomplishing this.